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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,680	04/14/2004	Akihiko Seki	251857US0	4889

22850 7590 09/23/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

FALASCO, LOUIS V

ART UNIT PAPER NUMBER

1773

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/823,680	<b>Applicant(s)</b> SEKI ET AL.	
	<b>Examiner</b> Louis Falasco	<b>Art Unit</b> 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                              |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                                          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/14/04</u> . | 6) <input type="checkbox"/> Other: ____.                                                |

### PAPERS RECEIVED

The Information Disclosure Statements filed 4/14/04 is acknowledged, and the list of pending applications filed 6/23/04 and 7/14/04 are acknowledged

### CLAIMS

The claims are: 1 to 3, all claims are under consideration.

### DETAILED ACTION

#### *Statutory Basis*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

*Rejections*

1. Claims 1 to 3 are rejected as unpatentable under 35 U.S.C. 103(a) over **Meguro et al** (US 6890646) alone or in view of the admitted prior art.

**Meguro et al** teaches the recording media structure of these claims, except **Meguro et al** does not teach the instant claimed measure of concavity size and concentration in the surface of the magnetic layer. **Meguro et al** does not teach the measure of concavity concentration because the concavity size and concentration is not measured. **Meguro et al** anticipates or at least renders the claim obvious because the concavity size and concentration would have been inherent the same or nearly so due to the same structure and the same process in formation of the recording media - using heating and calendering.

**Meguro et al** teaches a magnetic recording medium structure having a back coat on a side of a non-magnetic support with a non-magnetic layer having non-magnetic particles and binder and a magnetic layer containing ferromagnetic powder and binder with the thickness of the magnetic layer 0.03 to 0.30  $\mu\text{m}$  on the other side of the support and Ra 6nm or less, (**Meguro et al** col. 16 lns 47-50, col. 17 lns 35-41 and 55-59 and **Meguro et al** - col. 20 lns 46-48). While calling for a smooth surface, col. 1 lns 46, 47, col. 11 ln 44, col. 16 ln 53, col. 20 ln 39, **Meguro et al** does not have the surface measurements of concavities as in the instant claims.

In the instant application the surface concavity measured at 30 nm or greater depth in 5/cm<sup>2</sup> surface area is alleged as the novel product of a technique that differs

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from the admitted prior art (instant paragraphs [0009], [0010], [0126]) by calendering only after non-magnetic layer and magnetic layer formation and subsequent heat treatment - as evident from the examples, 'Examples' 1-4, representing the product of the instant claims differing from acknowledged prior art, 'Comparative Examples' 1-4, by not calendering between the non-magnetic layer formation and magnetic layer formation. However **Meguro et al** teaches the recording media structure from a technique of calendering subsequent to both non-magnetic layer and magnetic layer having been formed (**Meguro et al** - Examples particularly col. 22 lns 49-61). Products of the same structure would inherently be produced by this same process. Merely measuring the number of concavities does not constitute a patentable discovery<sup>1</sup> with evidence the product produced by non-magnetic layer formation and magnetic layer formation, drying and subsequently calendering (**Meguro et al** - col. 20 lns 46 - 58) is the same or nearly so<sup>2</sup>. If the process do result in a slightly different product the degree of difference would have been one adjusted for by routine optimization present in the art since **Meguro et al** is directed toward the goal of structuring a smooth surface, and diminishing voids left by solvents (**Meguro et al** - col. 18 lns 53-60).

As regards claim 2 average major axis length of the ferromagnetic powder 0.1  $\mu\text{m}$  or less: this has is not alleged to be applicants' invention (*cf* instant specification

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<sup>1</sup> "[T]he discovery of a previously unappreciated property of a prior art composition, . . . , does not render the patentably new to the discoverer." *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947.

<sup>2</sup> "A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present." M.P.E.P. 2112 SEC VI explaining *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990)

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paragraph [0061]) and would have been at least obvious to adopt since it is taught in **Meguro et al** -Table 1 "Major axis length "Ferromagnetic Metal Powder" (col. 7 ln 43 et seq.).

As regards claim 3 wavelength this would be obvious since has been taught as conventional in **Meguro et al** -col. 19 lns 3 to 5.

### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-3 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent Application No. 10/823,564 (corresponding to **Yajima et al** PG Pub 2004/0209121).

**Yajima et al** claims a magnetic recording media having an magnetic layer containing a ferromagnetic powder and a binder resin on a support and a back coat layer on the other surface of the support, wherein the thickness of the upper magnetic layer is within the range from 0.03 to 0.30  $\mu\text{m}$  and the number of concavities with a depth of 30 nm or greater in the surface of the upper magnetic layer is 5 per 1  $\text{cm}^2$  of surface area or less. Instant claims 1 to 3 differ from claims 5 to 8 of **Yajima et al** by having *Ra* of 6 nm or less. However claims 5 to 8 of **Yajima et al** are based on the disclosure of an *Ra* within the instant claimed 6 nm or less (see **Yajima et al** paragraph [0098]) .

As to instant claim 2 where the magnetic recording medium has an average major axis length of the ferromagnetic powder of 0.1  $\mu\text{m}$  or less this is included in claim 7 of **Yajima et al**.

As to instant claim 3 where the magnetic recording medium is in a recording and reproducing system in which the minimum recording wavelength is 0.6  $\mu\text{m}$  or shorter less this is included in claim 8 of **Yajima et al**.

### *Secondary Considerations*

3. Applicants' showing alleging unobvious results by Examples 1-4 when contrasted with Comparative Examples 1-4 has not been found convincing since the

showing (a) is not commensurate in scope with the claims under consideration and (b) fails to compare the invention with the closest prior art (**Meguro et al**).

There is insufficient evidence in Examples 1-4 of a trend that would reasonable extending the probative value of the data<sup>3</sup> to the numbers of concavities, 30 nm or greater depth in 5/cm<sup>2</sup> surface area, as has been claimed The concavities (numbers/ area cm<sup>2</sup> have shown to be 0.1/cm<sup>2</sup>, 0.3/cm<sup>2</sup>, 0.6/cm<sup>2</sup> and 4.8/cm<sup>2</sup> . The 4.8/cm<sup>2</sup> should be discarded as a statistical outlier not consistent with the other values since the 4.8/cm<sup>2</sup> is between 48 - 8 fold increase outside the trend of concavities and could not be extended further to the instant claimed 5/cm<sup>2</sup>

The showing of results, illustrated in Table 1 as Examples 1-4 *vs.* Comparative Examples 1-4, is not reasonably commensurate in scope with the claim protection sought since a process is not under consideration and the product is not limited by the steps 'A⇒B⇒C⇒D⇒E⇒F' *vs.* steps 'A⇒D⇒B⇒C⇒D⇒E⇒F' (cf instant Table 1) as limits the product in Examples 1-4. In the instant case patentability is based solely on the product structure.

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<sup>3</sup> *In re Clemens*, 622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980)



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*Other References*

Translation JA 11-031322 is cumulative to **Meguro et al** except has a metallic thin film lower non-magnetic layer.

Translation JA 09-185822 is cumulative to **Meguro et al** except has a lower magnetic layer.

**Lowery** (US 6818298) is cumulative to **Meguro et al** except has no smoothness levels recited.

JA 62-125537 abstract cited on IDS but not included.

SUMMARY

The claims are 1 to 3.

- No claim has been allowed.
- Information Disclosure Statements has been received.

INQUIRES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis Falasco, PhD whose telephone number is (571)272-1507. The examiner can normally be reached on M-F 10:30 - 7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol D. Chaney, PhD can be reached at (571)272-1284. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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**STEVAN A. RESAN**  
**PRIMARY EXAMINER**